Question 1 Response

The proposed scenarios reflect a reasonable and appropriate range of supply-side drivers and policy assumptions related to load growth, technology availability, and decarbonization pathways. The modeling framework and use of linear optimization to evaluate cost-effective system outcomes provide a necessary and valuable foundation for the IRP.

One area of material uncertainty that warrants clearer recognition as part of the scenario context is **customer affordability**, particularly under conditions of sustained high load growth. While supply-side system cost optimization is a necessary component of IRP analysis, affordability is experienced by customers and depends not only on the resource portfolio chosen but also on the evolution of Illinois' restructured electric market. Customer bills today reflect not only competitive supply costs and delivery service charges, but also non-bypassable charges used to fund policy programs and incentives. For some customers, these non-bypassable charges are by far the largest component of the utility delivery bill and a significant part of the overall energy bill. The evolution of these customer-facing cost components represents a meaningful source of uncertainty that is not fully captured through supply-side cost optimization alone.

The proposed modeling approach is therefore best understood as **necessary but not sufficient** for evaluating affordability. Scenario breadth plays an important role in exploring how different combinations of load forecasts, policy postures, and technology assumptions affect resource portfolio outcomes, and in surfacing conditions under which affordability considerations may become more prominent. However, scenario breadth by itself is not sufficient to support a rigorous assessment of affordability. Meaningful affordability analysis ultimately requires explicit accounting of total customer costs, rather than reliance on modeled supply-side system costs as a proxy.

This observation is not intended as a critique of the modeling environment selected for the IRP development process. To the contrary, it is our understanding that the PLEXOS modeling environment and associated analytical workflows are sufficiently flexible and robust to support expanded analysis, including post-processing and uncertainty-based metrics that more directly reflect customer-facing costs, should the Commission and Staff determine that additional analytical rigor is appropriate as the IRP process evolves.

Recognizing affordability as both a distinct objective and an uncertainty driver at this stage will help ensure that the IRP framework remains capable of informing later stages of the process in a transparent, analytically rigorous manner that is consistent with statutory requirements to consider both cost-effectiveness and affordability.

Question 2 Response

Yes. An additional scenario should be considered to test the performance of alternative resource portfolios under high load growth conditions, particularly given uncertainty around affordability outcomes.

Recent updates to load forecasts reflect the potential for sustained and potentially large load growth driven by data center development. While many data center operators have clean energy objectives, national development trends indicate that firm, dispatchable resources—particularly natural-gas-fueled generation—are playing a role in meeting near-term capacity requirements where speed to interconnection is a constraint. The proposed scenario suite includes high load growth assumptions but does not include a corresponding policy posture and technology assumption set that reflects these real-world development dynamics.

To address this gap, IIEC recommends inclusion of an additional scenario within the *Alternative Decarbonization Paths* grouping that represents a “Cleaner Energy” pathway with greater flexibility regarding the role of natural-gas-fueled generation. The purpose of this scenario would be to test the sensitivity of portfolio outcomes to alternative policy and technology assumptions under conditions of high load growth.

Proposed Scenario Configuration

Load Forecast

- High load growth, consistent with data-center-driven expansion assumptions used elsewhere in the scenario suite.

Policy Posture

- **Renewable Portfolio Standard (RPS):**
  Continued deployment of behind-the-meter PV, utility-scale PV, and wind at levels consistent with existing CEJA targets, with resource ratios held constant over time.
- **Clean Energy Standard (CES):**
  The 2050 clean energy goal is not imposed within the model horizon (through 2047). **No requirement is applied for net-zero offsetting of greenhouse gas emissions from natural-gas-fueled generation.**

- **Generator Emissions:**
  CEJA emissions restrictions remain in place for electric generating units and greenhouse-gas-emitting units located in or within three miles of an environmental justice or equity investment eligible community, excluding behind the customer meter Combined Heat and Power (CHP) units, which are cleaner by their very efficient nature. **For natural-gas-fueled units not subject to these location-based restrictions, CEJA 415 ILCS 5/9.15 (i) through (k-5) emissions limits are rescinded to allow development and operation consistent with all other applicable federal and state environmental requirements.**

Technology Assumptions

- **Demand Response:**
  Baseline energy efficiency assumptions; existing demand response participation for non-data-center load; virtual power plants consistent with post-CRGA tariffs. **New data center load assumed to include non-firm or curtailable service arrangements, including bring-your-own-generation provisions.**
- **Emerging Technologies:**
  New nuclear (including uprates) and long-duration energy storage available based on current market cost and timing projections. **Data centers are allowed to co-locate with supply resources capable of operating across grid-connected, prime power, and emergency support configurations, including the provision of reliability support during network events.**

Relevance to Cost-Effectiveness and Affordability

The intent of this scenario is not to define a preferred resource strategy or to assume changes to existing statutory requirements. Rather, it is intended to support evaluation of portfolio performance under alternative policy postures in a scenario where affordability and speed-to-power considerations are likely to be more prominent. The proposed policy posture seeks to deliver a cleaner resource portfolio in a more technology neutral regulatory environment that is less constrained with respect to emissions limits and retirement requirements than the current CEJA requirements.

The IRP modeling framework appropriately evaluates cost-effectiveness by minimizing supply-side system costs over time using linear optimization. These system costs reflect capital and operating costs from the perspective of resource owners and operators and provide important information for comparing portfolios on a consistent basis. However, affordability is experienced by customers and depends on total electricity bills, which are influenced by additional factors not captured directly in supply-side optimization, including delivery service costs and the funding of incentives through non-bypassable charges.

As a result, it is possible for alternative portfolios to be cost-effective within the modeling framework while exhibiting different affordability outcomes once total customer costs are considered. Including stretch scenarios such as the proposed Cleaner Energy scenario provides a structured way to test the sensitivity of portfolio outcomes to these considerations and to identify conditions under which affordability objectives may warrant additional scrutiny.

Given its role as a plausibility-testing scenario under high load growth, this Cleaner Energy scenario could be considered as a replacement for the Net Zero + High Load scenario, which also represents a stretch case but also reflects a narrower less plausible set of development assumptions. In this IRP context, plausibility-testing means asking whether a modeled future state remains viable—technically, economically, and from a customer affordability perspective—under a coherent set of assumptions that could reasonably arise. It addresses the question “Is this a future that policymakers could plausibly face, and if so, how do portfolios perform under it?”